

ATTACHMENT - REMARKS

Claim 116-165 are pending in the present application. By this Amendment, Applicant has canceled claims 60-115 and added new claims 116-165. Applicant respectfully submits that the present application is in condition for allowance based on the discussion which follows.

Now canceled claims 78, 96 and 97 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,497,360 (hereinafter "Schulze"). The remaining, now canceled claims were rejected under U.S.C. § 103(a) as being obvious from Schulze in view of one or more of the following references: U.S. Patent No. 6,490,433 (hereinafter "Freeny"), U.S. Patent Application Publication No. 2002/0097436 (hereinafter "Yokoyama." Applicant respectfully submits that the presently claimed invention, which corresponds to the subject matter of the now canceled claims, is not anticipated by or in any way obvious from Schulze, individually or in combination with one or both of Freeny and Yokoyama.

The presently claimed invention is directed to a novel system and method with key features, in combination with the remaining portion of the claimed invention, not found in the prior art. These key features include:

- i) device specific electronic data; and
- ii) that the data stream is intercepted without any adjustment to point of sale operating software.

Accordingly, the claims are directed to an interface which is capable of intercepting data transmitted between a point of sale (hereinafter POS) terminal and at least one peripheral to adjust and/or compile at least a part of the data. The adjusted or

compiled data is transmitted to the peripheral device via the interface. One advantageous device is a peripheral printer, although other peripheral devices may be used in accordance with the present disclosure provided in the present specification.

Schulze Patent

The claimed invention is not anticipated by or in any way obvious from Schulze. Schulze is directed to a business process. One present claim element missing from Schulze is that the Schulze system does not perform peripheral data interception. The Schulze coupon redemption system simply duplicates many of the parts present in a traditional POS system.

The Schulze coupon redemption system is described in detail in two important figures which show the Schulze system architecture. The following excerpt from Schulze describes how the Schulze system is arranged:

FIG. 2 represents a point of sale subsystem **112** useable with the coupon redemption subsystem **104** of the present invention. In general, the point of sale subsystem **112** includes a server **200** having associated storage **204**, memory **208** and a processor **212**. In addition, the server **200** may include communications **216** and peripheral **220** interfaces as required by the particular communications channel **108** and peripheral devices interconnected to the server **200**. In a typical point of sale subsystem **112**, the server **200** includes an Intel Pentium™ class processor **212** with a suitable hard disk and/or tape drive as the storage **204** and 64 Mb of solid state memory **208**.

(Schulze, column 4, line 63-column 5, line 8.)

Accordingly, Schulze Figure 2 describes a typical POS set up, albeit connected to a "coupon redemption system" via a communication channel (108). Schulze Figure 3 describes the Coupon Redemption System, describing a "communications channel" (108) that connects to the POS system (112) shown in Schulze Figure 2. It must be

emphasized that the "input/output devices" of the coupon redemption system in Schulze Figure 3 (328) are not the same devices the POS system uses (228) in Schulze Figure 2.

In direct contrast to the system of Schulze, the presently claimed system does not require POS modification and the presently claimed system does not introduce extra peripherals into the system. All data used by the presently claimed system and method are determined by examining existing peripheral data streams.

It must be emphasized that the Schulze system does not manipulate or adjust data between the POS system and its peripherals, as alleged by the Examiner. To the contrary, Schulze describes the necessary data collection as a "passive tap" and, therefore, Schulze does not anticipate, let alone suggest or make obvious, manipulating or adjusting data, as Schulze receives its data passively, i.e. without manipulation, adjustment or any action applied to the passive collection of data. Therefore, the Schulze system is completely different in its implementation to the present system and method, i.e. with regard to its architecture, peripheral management and interface operation. Where Schulze introduces new peripherals, the presently claimed method and system intercept data into its existing peripherals.

Using the intercepted data, which is manipulated, the present method and system provides content such as coupons, graphics or the like. Thus, one novel feature of the present invention is the interception of data which is then used for providing content, not the production of coupons, graphics or other content, which are provided by conventional POS systems. Where conventional POS systems either implement such production either directly or through a POS system which explicitly provides an

electronic connection to some other systems that implement the functionality of providing content, the present method and system is distinguishable over POS systems by the manner the present invention intercepts data into existing peripherals, as claimed.

The presently claimed method and system is distinguishable over prior art systems in that prior art systems "eavesdrop" on device connections in order to gather data. These prior art systems such as Schulze, thus passively gather, but do not manipulate data in any way. Accordingly, the present method is distinguishable over prior art methods, including Schulze, in that in the present method and system, data is manipulated as it is received so that the information sent and received by both the POS system and its peripherals may be significantly altered.

Applicant notes that the Examiner alleges that Schulze discloses performance of peripheral data interception. Applicant respectfully disagrees with the Examiner's allegation. A POS subsystem can include a main computer or server of a retailer that commonly communicates with a number of checkout stations at which products are purchased. Each checkout station includes a cash drawer or electronic cash register, together with a product scanner. Schulze does not disclose, nor would one of ordinary skill in the art conclude, that these aforementioned devices have peripheral data interception capabilities nor would one conclude that a cash drawer or electronic cash register, together with a scanner, would have peripheral data interception functionality, absent there being a disclosure that such devices have been provided with the aforementioned peripheral data interception functionality. In direct contrast to the lack of disclosure in Schulze with regard to peripheral data interception, in the present

method and system, a POS terminal is in communication with at least one peripheral device, wherein the electronic data communication is specific to the peripheral device function and wherein the data is generated by the device or the POS terminal, depending on whether the device is an input device or an output device. Schulze fails to teach or in any way make obvious this feature or functionality. Furthermore, Schulze does not teach that electronic data communicated is specific to the peripheral device function, wherein the data is generated by the device or POS terminal, dependent on whether the device is an input device or an output device.

Referring to Schulze, column 6, lines 33-48:

The coupon redemption subsystem **104** may "*listen in*" to activity occurring on the point-of-sale subsystem **112**, and make a record of that activity in real time. Such monitoring of the point-of-sale subsystem **112** requires interfaces **216** and/or **316** that are capable of detecting the activity to be monitored and translating that activity into a signal that can be understood by the coupon redemption subsystem **104**. The information monitored on the point-of-sale subsystem **112** may include information stored in the storage **204** of the point-of-sale subsystem **112** as part of the operation of the point-of-sale subsystem **112**. Alternatively, information transferred between the various input/output devices **228** and the server **200** of the point-of-sale subsystem **112** may be monitored by the coupon redemption subsystem **104** and stored in storage **304**.

This '*monitoring*' behavior is used both in gathering data from existing systems and is also a common part of system development where diagnostic tools perform such functions. It also has parallels in practices known as 'screen scraping' and 'web scraping.' What these approaches have in common is that they allow capture of information. However, Schulze does not perform the interception necessary to allow manipulation or synthesis of data en route between the POS and its peripherals or peripherals and the POS.

Yokoyama Publication

Yokoyama discloses promotions which could or should be dependent on products purchased and sales receipts issued from POS printer records for a customer,

which products were purchased, and the purchase price, which along with promotional material and products can be printed on a sales receipt. Yokoyama, however, does not disclose the use of an interface where data is intercepted and/or manipulated/altered, as claimed. While Yokoyama is representative of prior art systems which are based on using sales receipts for various promotions, Yokoyama, like other prior art systems, does not teach or in any way make obvious the claimed interception and manipulation of data.

Yokoyama, like other prior art systems, include a common marketing technique in which purchasers of one product may be interested in a similar product and, therefore, are provided with marketing information related to that similar product. What neither Yokoyama nor any other prior art system discloses or makes obvious is how this can be realized without resorting to modifying a POS system that does not support the aforementioned functionality of providing related promotional material. It is the novel and non-obvious feature of the present system which integrates such reward schemes into a current POS system. Thus, the present system is not directed to concepts of advertising, loyalty or lottery *per se* promotions, but the method in which such promotions are provided, using a novel and non-obvious method and system.

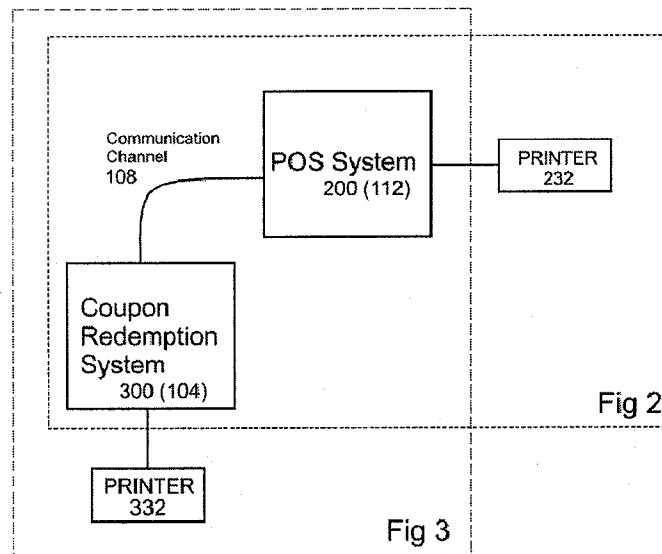
The present claims are not anticipated by Schulze

Previously rejected and now canceled claims 96 and 97 have been redrafted as new claims 150 and 151. Applicants respectfully submits that these claims are not anticipated by Schulze, as follows.

The Examiner has alleged that Schulze teaches "*peripheral devices associated with the coupon redemption system include a display including touch screen type display and various input/output devices, and the input/output devices include a printer, Point of Sale system, data center links, communication interface which capable of interrupting the data stream between the POS and printer*" (Office Action, page 4, lines 16-20). Further, the Examiner refers to Schulze Figure 3 and item 112 (POS system), 124 (data center), 316 (communications interface to the coupon subsystem) and 332 (printer).

Applicant respectfully notes that the way Schulze Figures 2 and 3 present its system architecture is somewhat confusing because the physical architecture of both the POS system (Fig. 2) and the coupon redemption system (Fig. 3) are almost identical, both representing standard computers. Schulze Figure 2 primarily concerns itself with the POS, while Figure 3 is primarily directed to the coupon redemption system. It is important to understand that the coupon system has its own peripherals, independent of the POS.

The diagram below illustrates the scope of Schulze Figures 2 and 3. The diagram has been abridged to focus on the printers and their connections, but the same arrangement applies to scanner, keyboard and display devices as well. The only device in isolation is the scale, which is only in evidence at the POS. In Schulze Figure 3, the entire POS system is referred to as object 112 but in Schulze Figure 2, where the POS is described with its peripherals, the computer part is 300. Similarly the Coupon Redemption system is 300 and 104, respectively.



Referring to the diagram above, the printer 232 (i.e. the POS printer) is not depicted as being under the control of the Coupon Redemption System and that printer 332 is not under control of the POS system. If one were to further examine Schulze for the purpose of printer 332, one would only find:

According to one embodiment of the present invention, the report of redeemed coupons, a release of the verifying coupons transferring ownership of those coupons from the retailer to the third party verification service, and a check are printed using the printer 332 of the coupon redemption subsystem 104 at the close of the coupon redemption session.

(Schulze, column 10, lines 28-34.)

Applicant respectfully notes that the Examiner's comments, mentioning printer 332 in the context of "interception," indicate that there has been a misunderstanding in the function of the 332 printer in the Schulze system. To correct any misunderstanding or misinterpretation, Applicant notes that Schulze does not teach that intercepting and manipulating the data sent to a POS printer is: (1) required or (2) desirable, and Schulze proposes no mechanism to intercept or manipulate data. In complete contrast to Schulze, the present method and system intercepts and manipulates data sent to a

POS printer and, moreover, the interception and manipulation of the data is highly desirable. Furthermore, Schulze teaches a system that is "adapted to store information" (Schulze, column 2, lines 49-57), whereas in the presently claimed method and system, it will be clear to one of ordinary skill in the art that no corresponding adaptation is necessary (see, e.g., generally the present specification, which discloses how the claimed invention is to be implemented).

Moreover, contrary to the Examiner's assertion that Schulze is "capable of intercepting the data stream between the POS and the printer" (Schulze Figure 2 shows that the POS printer is connected to the POS and that there is no connection beyond a simple monitoring described in the Schulze reference). Similarly, the interception of other Schulze devices, such as bar code scanners, are not disclosed in Schulze as having the claimed functionality.

Based on the foregoing, Applicant respectfully submits that claims 150 and 151 are not anticipated by Schulze.

The presently claimed invention is not obvious from Schulze, individually or in combination with the other cited prior art.

Applicant respectfully submits that new claim 116 (corresponding to now canceled claim 60) and new method claim 156 (corresponding to now canceled claim 91) are not obvious from Schulze in view of Freeny.

As previously stated, the Schulze patent does not teach data interception between the POS and printer, contrary to the examiner's assertion. Schulze only suggests monitoring of POS peripherals as one means of capturing data, but does not suggest manipulation or control of such devices.

The Freeny patent cited relates to a different field of invention but teaches that new technology may be added to a legacy system without modifying that system. The technique that Freeny uses is through the use of an emulation whereby data is delivered in the same format that some legacy device uses. By emulating a device that the legacy system accepts, the new system will be accepted. The illustrative example of credit card data cited in the Freeny citation suggests that the system will provide payment data formatted in the same way that credit card data is formatted. This is quite different from an interception technique with an existing peripheral as would be understood by one skilled in the art.

Even if one were to, *arguendo*, combine the individual teachings of Schulze and Freeny, the combined disclosure fails to in any way disclose any means to manipulate device output and to gain the benefit that is gained from that manipulated device output.

Based on the foregoing, Applicant respectfully submits that claims 116, and claims 117-120, which depend therefrom, are not obvious from Schulze in view of the prior art.

Further, Applicant respectfully submits that claim 121 is not anticipated by or obvious from Schulze, as the scanner operation described in Schulze is a simple, normal scanner usage at the POS. The data may be monitored, but Schulze provides no suggestion or disclosure of manipulation, as required in claim 116 from which claim 121 depends.

Applicant respectfully submits that claim 122 is not anticipated by or obvious from Schulze, as the only mention of a scale is a POS peripheral that is not explicitly referred

to anywhere in Schulze. Furthermore, in Schulze, there is no illustrative use of the scaled data.

Applicant further respectfully submits that claim 121 is not obvious from Schulze in view of Freeny, as Freeny uses an emulation of a device, rather than interception of a device, as described above with regard to claim 116.

Applicant respectfully submits that claim 124 is not obvious from Schulze in view of the prior art, as the Schulze scan operation is described as a simple normal scanner usage at the POS. While the Schulze data may be monitored, Schulze provides no suggestion of data manipulation, as discussed above with regard to claim 116.

Applicant respectfully submits that claim 125 is not obvious in view of the cited prior art, as Schulze does not teach interception as discussed above with regard to claim 116.

Applicant respectfully submits that claim 126 is not obvious in view of the prior art, as Schulze does not teach placement of additional hardware of any kind at the POS nor printing of any content at the POS and, therefore, claim 126, in conjunction with the subject matter of claim 116, is not taught or obvious in view of the cited prior art.

Claim 127 is not anticipated by or obvious from Schulze in view of the prior art, as the prior art does not teach or in any way make obvious the claimed preload content being output to a peripheral device, as required.

Claims 128 is not obvious in view of the prior art, which relates to data which may be received from a range of input devices in that Schulze explicitly describes normal POS operation. Again, it must be emphasized that even the monitoring, later

suggested by Schulze, is different from interception and manipulation capability of the present invention as discussed above with regard to claim 116.

Claim 129 is not obvious from the prior art, which claim is directed to data intercepted from one peripheral device, which may be adjusted/compiled/manipulated. As noted above in claim 116, the passage quoted in the outstanding Office Action with regard to Schulze appears to be in error and nowhere does Schulze suggest performing the claimed function.

Claim 130 is not obvious from the prior art in that claim 130 recites the system is connected to a remote server. Although Schulze does teach the use of remote servers, in the context of Schulze, its use and configuration is different due to the nature of the data being communicated and, therefore, the use of the remote servers per claim 130 as used in conjunction with the subject matter of claim 116 is not obvious in view of Schulze.

Applicant respectfully submits that claim 131 is not obvious in view of the prior art in that although Schulze mentions a POS may have a display, Schulze does not mention that the POS would have a customer's display, i.e. an additional display, such as a pull mount or LCD display, which are now conventional. Moreover, as discussed above with regard to the search matter of claim 116, there is no disclosure of intercepting or operating such a display as the Schulze display, except as a POS device, the display may be monitored for some undisclosed reason not present in Schulze.

Claim 132 is not anticipated or obvious in view of the prior art, as Schulze fails to provide any disclosure with regard to a lottery terminal, nor is there any reference to such functionality being offered by the Schulze system.

Claim 133 is not obvious from the prior art, as Schulze makes mention of electronic funds transfer as a common means of payment, but Schulze does not mention interfacing to such a device as discussed above with regard to claim 116.

Claims 139-142 are not obvious in view of the prior art. These claims recite that data may be intercepted and manipulated, where Schulze makes no disclosure and provides no functionality for interception and manipulation. Further, Freeny merely refers to a process of emulation of a device in order to provide compatibility. Neither Schulze nor Freeny suggest intercepting and manipulating data to/from existing peripherals. Therefore, even if one were to, *arguendo*, combine the disclosures of Schulze and Freeny, neither teach the required element of manipulating and intercepting data, as claimed.

Further, claims 139-142 are not obvious from Schulze in view of other cited prior art in that Schulze merely processes data from its POS terminal. Thus, it is not unexpected in that the Schulze system is a coupon redemption system only, and Schulze has no need for output at the POS. Moreover, such functionality is not described in Schulze in any way with respect to outputting anything other than data that is sent to the coupon redemption system. There is no control of POS peripherals described in the cited art. Accordingly, claims 13-142 are not obvious in view of the disclosure of Schulze.

With regard to Freeny, the Examiner asserts that Freeny describes interfacing to a POS without changing the POS. However, Applicant respectfully submits that the Examiner has taken the Freeny disclosure out of context in that Freeny is directed to an emulation so that an existing interface may be used, rather than interception and controlling an existing peripheral. Accordingly, it will be cleared to one skilled in the art that Freeny fails to provide the claimed functionality with regard to data interception and manipulation without modifying a POS, as claimed.

Claim 143 is not obvious from the cited prior art, which art refers to a dedicated coupon redemption system being able to produce a report. In view of the foregoing discussion, it will be clear that the presently claimed system in no way is anticipated or obvious in view of prior art coupon redemption systems, such as those cited. In particular, the reference cited in the Office Action as showing this functionality, namely Freeny, is directed to a physically separate system from the POS system, and thus independently invoked.

Claims 144-148 are not obvious in view of the cited art, as discussed above with regard to the previous claims, and further for reciting additional features not taught or in any way obvious from the cited prior art.

Claim 149 is not obvious in view of the prior art in that the software disclosed in Schulze, e.g. Figure 2, is a simple POS software which Schulze does not further contribute in its system. Again, as discussed above, one must not confuse Figure 2, relating to a POS, with an almost identical Schulze Figure 3 system. Freeny teaches emulation to extend a legacy system with new peripherals, but not interception to control existing peripherals and data manipulation, as claimed.

Claims 155-157, 164 and 165 are not obvious in view of the prior art, such as Schulze, which does not teach or in any way make obvious data which is disseminated to an intelligent interface and used to drive controlled peripherals, as claimed. The Schulze collects data and is not capable of driving POS peripherals. Applicant respectfully directs the attention to Schulze Figure 3, which does not include a POS device and further suggests that there may be some misunderstanding between the purposes of Figure 2 and that of Figure 3.

Claim 138 is not obvious from the prior art, as discussed above. There may have been some confusion about the location of software, as the adaptation referred to the "coupon redemption system," rather than the POS. As must be emphasized, the claimed invention is directed to POS software. However, the Office Action inadvertently combines aspects of the Schulze coupon redemption system with individual aspects of the Schulze POS system.

Claims 134-136 and 158-163 are not obvious from Schulze, further in view of Freeny and Yokoyama. The disclosure of Yokoyama reflect common commercial practices in regard to promoting similar items to those purchased, and teach nothing in regard to providing the supporting system used to deliver such functionality. Freeny does not teach the adaptation of existing equipment and suggests only that data entry may be accomplished by emulating some other known compatible device. This is not the same regime as the present invention. Finally, Schulze does not teach data interception and manipulation of peripherals, and provides no mechanisms for customer content output.

Claims 134, 135, 159, 160 and 162 are not obvious from Schulze in view of Yokoyama. Again, Yokoyama discloses possible applications of common commercial practices as illustrations. The Schulze system described is, however, incapable of delivering the Yokoyama content because the Schulze system does not control the POS peripherals and, at best, can only monitor them. Accordingly, Schulze in view of Yokoyama fail to provide an enabling disclosure since the two systems are incompatible with regard to the functionality of the the presently claimed method and system. Specifically, the Schulze system disclosed is incapable of delivering such content because it does not control the POS peripherals and, therefore, one skilled in the art would not be able to implement Yokoyama with Schulze and vice versa. Moreover, changing to an intelligent interface system, as claimed, represents a dramatic change in architecture that is not anticipated by either of the cited references.

In conclusion, Applicant respectfully submits that all claims are allowable over the prior art as being directed to a method and system which includes an interface capable of intercepting data transmitted between a point of sale terminal and at least one peripheral device to adjust and/or compile at least a part of the data so that the adjusted and/or compiled data is transmitted to at least one peripheral device via the interface.

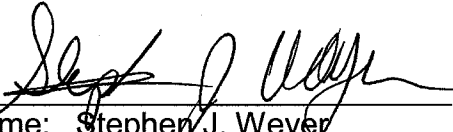
Based on the foregoing, Applicant respectfully submits that all pending claims are clear of the cited prior art.

In view of the foregoing, Applicants respectfully submits that the present application is in condition for allowance.

Respectfully submitted,

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